

## IMPROVING THE HABS FORECASTING CAPABILITY AND EXTENDING THIS CAPABILITY TO TEXAS AND MEXICO

### Needs and Opportunities Identified by Gulf States in Water Quality White Paper:

- ♦ “Specific recommendations for the development of tools to address water quality problems include...[m]ethods to detect, identify the cause of, and prevent red tide. Red tide and other harmful algal blooms regularly impact the waters around the Gulf Coast states. Each bloom event results in beach evacuations, shellfish harvesting area closures and environmental conditions that can be detrimental to human health. Monitoring red tide blooms is still accomplished using methods developed long ago. There is a current need to obtain, test, and validate new methodologies to monitor red tide, study its biology and then try to reduce its effects.”

**Federal Response:** By making use of recently developed technology, the Federal Workgroup and external partners would leverage existing tools, capabilities, and resources to improve red tide predictions in southwest Florida. These resources would be integrated into a revised NOAA Harmful Algal Bloom (HAB) Forecast System that would identify onset of red tide blooms sooner and predict the transport of the blooms better than the existing HAB forecasting system. Specifically, the improved forecasting system would:

- ♦ Acquire and integrate additional needed ocean observation data;
- ♦ Improve models for predicting landfall and transport of HABs;
- ♦ Improve the prediction of potential respiratory irritation at specific beaches; and
- ♦ Develop an improved HAB Forecasting System to locate and forecast red tide blooms before they reach the shore.

As part of the Federal response to the Gulf States' needs, the Federal Workgroup proposes extending this HAB Forecast System to include the Texas coast as well as the northern portion of Mexico that borders the Gulf of Mexico. Severe red tide blooms in 2000, 2001, and 2002, in Mexico and Texas opened the door to NOAA and EPA collaboration with Mexico to understand conditions that initiate and transport blooms in the western Gulf and to better protect human health. This extended forecasting capability may begin late this fiscal year in Texas and the western Gulf, including Mexico. This project would require significant coordination with Mexico, particularly as field observations from Mexico would be needed to provide meaningful HAB analyses in this area.

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**Other partners:** U.S. Department of State, DOI, HHS/FDA, NASA, DOD

*This Federal Response Proposal represents an initial project idea from the 13 agencies represented on the Federal Workgroup, in response to the Gulf State Alliance white papers; it is meant to stimulate discussion, among the Gulf State Alliance and the Federal Workgroup, as they work toward the development of a draft Gulf Plan of Action. Implementation of this project idea is subject to further evaluation and the availability of funding.*